

REMARKS/ARGUMENTS

New POWER OF ATTORNEY/CORRESPONDENCE ADDRESS

(Customer Number 51472)

The Applicant is submitting herewith a new “power of attorney” that both (1) appoints practitioners associated with USPTO customer number (CN) 51472 and also (2) indicates the new correspondence address of the present U.S. utility patent application to be that which is associated with USPTO CN 51472.

Brief Summary of Status

Claims 1-13, 23-38, and 47-80 are pending in the application.

Claims 64-80 are allowed.

Claims 1-5, 8-10, 13-24, 26-32, 34-52, and 54-63 are rejected.

Claims 6, 7, 11, 12, 25, 33, and 53 are objected to.

The Applicant has canceled claims 47-63.

35 U.S.C. § 103

The Examiner asserts:

“3. Claims 1-3, 9, 23-24, 26-30, 32, 34, 35, and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shpak (US 2004/0162037 A1) in view of Vaisanen et al (US 20040192222 A1) and further in view of Gorday et al (US 200410203836 A1).” (non-final office action, Part of Paper No./Mail Date 20070331, p. 2)

The Examiner asserts:

“4. Claims 8, 10, 13 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shpak (US 200410162037 A1) in view of Vaisanen et al (US 20040192222 A1) and further in view of Gorday et al (US 200410203836 A1) and further in view of well known prior art (MPEP 2144.03).” (non-final office action, Part of Paper No./Mail Date 20070331, p. 6)

The Examiner asserts:

“5. Claims 4-5, 31, 50-52, 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shpak (US 200410162037 A1) in view of Vaisanen et al (US 20040192222 A1) and further in view of Gorday et al (US 200410203836 A1) and further in view of Rajamani et al (US 20040214539 A1.” (non-final office action, Part of Paper No./Mail Date 20070331, p. 7)

Allowable Subject Matter

The Examiner asserts:

“6. Claims 6, 7, 11, 12, 25, 33, and 53 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” (non-final office action, Part of Paper No./Mail Date 20070719, p. 9)

The Examiner asserts:

“7. Previously cancelled claims 14-22 (now renumbered as claims 64-72) and 39-46 (now renumbered as (73-80) are allowed.” (non-final office action, Part of Paper No./Mail Date 20070719, p. 9)

35 U.S.C. § 103

The Examiner asserts:

“3. Claims 1-3, 9, 23-24, 26-30, 32, 34, 35, and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shpak (US 2004/0162037 A1) in view of Vaisanen et al (US 20040192222 A1) and further in view of Gorday et al (US 200410203836 A1).” (non-final office action, Part of Paper No./Mail Date 20070331, p. 2)

The Applicant respectfully traverses.

The Applicant has canceled claims 47-63.

The Applicant has amended certain of the claims.

The Examiner asserts:

“Shpak discloses a WLAN (Wireless Local Area Network) interactive device (abstract and figure 1, "access point"), the device comprising:

a classifier (Fig. 3, note that a classifier must exist in order to choose from one of the three radio channels); a plurality of PHY (physical layer) receivers wherein each PHY receiver of the plurality of PHY receivers is communicatively coupled to the classifier (Figs. 1-2, and paragraph 8, "multiple frequency channels"); and wherein:

the device receives a frame of data (figs. 1-3 and paragraph 2, "WLAN", note WLAN receivers receive frame of data as in any digital communication system);

each PHY receiver of the plurality of PHY receivers performs pre-processing of the received frame to calculate a confidence level indicating whether the received frame is intended for that PHY receiver (Figs. 2-3 and paragraph 48, "The triplexers shown here, for use in the 2.4 GHz band of IEEE 802.11 b/g, are just one example of RF multiplexes that may be used in sharing antennas among multiple WLAN channels ... six- or eight-way multiplexer could be used", note that one of the transceivers (PHY receiver) from a plurality of transceiver is selected (classified) according to its level confidence (capabilities));

each PHY receiver or" the plurality of PHY receivers that calculates a confidence level that is equal to or that corresponds to that PHY receiver asserts a claim to the classifier (Figs. 2-3 and paragraph 48, note the selection of one of the plurality of transceivers according capabilities);

when 2 or more PHY receivers of the plurality of PHY receivers assert claims to the classifier, the classifier arbitrates the claims and designates 1 of the 2 or more PHY receivers as being an intended PHY receiver (Figs. 2-3 and paragraphs 47-50);

when only 1 PHY receiver of the plurality of PHY receivers asserts a claim to the classifier, & classifier designates that 1 PHY receiver as being the intended PHY receiver (Figs. 2-3 and paragraphs 47-50);

the classifier asserts a PHY select signal to the intended PHY receiver; as being the intended PHY receiver processes the received frame (paragraphs 44, 47, 51, note that one of the transceivers has to be selected to process the received frame).” (non-final office action, Part of Paper No./Mail Date 20070331, p. 2, emphasis added)

The Applicant respectfully believes that Shpak explicitly teaches and discloses, and pictorially depicts, that not all of the PHY receivers perform any processing and/or pre-processing of a received signal and/or a received frame.

Shpak teaches and discloses:

“[0047] FIG. 3 is a block diagram that schematically illustrates further details of radio circuitry used in access point 22, in accordance with an embodiment of the present invention. Each of PHYs 33, 34 and 35 comprises a radio transceiver, including a transmit circuit 64 and a receive circuit 70, which are tuned to serve the respective frequency channel of the PHY. The channels are arbitrarily identified in the figure as F1, F2 and F3. For an 802.11b WLAN, for example, the transceivers would be tuned to channel 1, channel 6 and channel 11, as provided by the 802.11b specification. Transmit circuit 64 and receive circuit 70 in each PHY are driven by an oscillator 66, which is tuned to the frequency of the channel assigned to that transceiver (F1, F2 or F3).

[0048] The radio transceivers in PHYs 33, 34 and 35 are coupled to antennas 30 and 32 by respective triplexers 58 and 60. Triplexers 58 and 60 typically comprise arrays of single-ended passive filters, as are known in the art, which combine the downlink signals from transmitters 64 with minimal loss. The triplexers similarly divide the uplink signals by frequency channel, so that the frequency channel of F1 is passed to PHY 33, F2 to PHY 34, and F3 to PHY 35. Typically, for efficient combination and separation of signals, triplexers 58 and 60 are fabricated as one or more RF hybrid components, as is known in the art. Triplexers of this sort are available from various manufacturers, such as

Rojone Pty Ltd. (Sydney, Australia), Multec Communications (Rockland, Mass.) and the Radiowave Division of Unglar Inc. (Rindge, N.H.). The triplexers shown here, for use in the 2.4 GHz band of IEEE 802.11b/g, are just one example of RF multiplexers that may be used in sharing antennas among multiple WLAN channels. As another example, a six- or eight-way multiplexer could be used to serve the six to eight channels that are available in the 5 GHz band. Multiplexers for greater or smaller numbers of channels may be used, as appropriate, in these and other applications.” (Schpak, paragraph [0047 - 0048], p. 4, emphasis added)

The entirety of the received signal and/or received frame is clearly not even provided to each of the “PHY 33”, “PHY 34”, and “PHY 35”. Rather, the “triplexers similarly divide the uplink signals by frequency channel, so that the frequency channel of F1 is passed to PHY 33, F2 to PHY 34, and F3 to PHY 35”.

As such, the Applicant respectfully believes that it is clear that the entirety of the received signal and/or received frame does not undergo any processing and/or pre-processing within each of the “PHY 33”, “PHY 34”, and “PHY 35”.

In contrast with the Applicant’s claimed subject matter in which a received frame undergoes pre-processing in each PHY receiver of a plurality of PHY receivers, the “triplexers” of Schpak effectively divide the signals into 3 frequency channels (e.g., F1, F2, and F3” so that each PHY of Schpak only receives the portion of the received signal and/or received frame that corresponds to that particular PHY.

Moreover, as cited above, Schpak teaches and discloses that “Each of PHYs 33, 34 and 35 comprises a radio transceiver, including a transmit circuit 64 and a receive circuit 70, which are tuned to serve the respective frequency channel of the PHY”. Clearly, each of the “PHYs 33, 34 and 35” only processes any portion of a received signal and/or received frame that is included within “the respective frequency channel of the PHY”.

In other words, when considering FIG. 3 of Schpak, the “transmit circuit 64 and a receive circuit 70” of “PHY 33” serves only 1 of the 3 frequency channels (i.e., “F1”).

When considering FIG. 3 of Schpak, the “transmit circuit 64 and a receive circuit 70” of “PHY 34” serves only 1 of the 3 frequency channels (i.e., “F2”).

Also, when considering FIG. 3 of Schpak, the “transmit circuit 64 and a receive circuit 70” of “PHY 35” serves only 1 of the 3 frequency channels (i.e., “F3”).

No one PHY of the “PHYs 33, 34 and 35” is operable to process an entirety of the signal and/or frame received that includes all of the frequency channels. In other words, when a frame is received by the “radio circuitry used in access point 22” (e.g., as in FIG. 3 of Schpak), then it effectively undergoes frequency division so that each of the particular PHYs is operable only to get its respectively served frequency portion.

The very connectivity of the FIG. 3 of Schpak shows that all of a received frame is not provided to all of the “PHYs 33, 34 and 35”.

For example, considering the situation where a frame spans all of the 3 frequencies of F1, F2, and F3, then clearly two-thirds of the frame would not be provided to any one of the “PHYs 33, 34 and 35” in Schpak. In other words, the “frame” itself would not be processed by any one of the “PHYs 33, 34 and 35” in Schpak in accordance with the subject matter as claimed by the Applicant. The Applicant respectfully believes that it is clear that processing and/or pre-processing at a maximum only 2/3 of a frame is not the same as processing and/or pre-processing the frame.

The Applicant claims subject matter such that each PHY receiver of the plurality of PHY receivers performs pre-processing of the received frame to calculate a confidence level indicating whether the received frame is intended for that PHY receiver. The Applicant respectfully believes that Schpak fails to teach and disclose at least this subject matter limitation.

As an alternative, considering the situation where a frame spans only 1 of the 3 frequencies of F1, F2, and F3, then clearly only 1 of the “PHYs 33, 34 and 35” in Schpak would process and/or pre-process the frame, and the other 2 of the “PHYs 33, 34 and 35” in Schpak would not process and/or pre-process the frame at all. Again, the Applicant claims subject matter such that each PHY receiver of the plurality of PHY receivers performs pre-processing of the received frame to calculate a confidence level indicating whether the received frame is intended for that PHY receiver. The Applicant respectfully believes that Schpak fails to teach and disclose at least this subject matter limitation.

Again, the Applicant respectfully believes that even considering the mere pictorial representation of the FIG. 3 of Schpak, the Applicant respectfully believes that it is clear

that a received signal and/or frame received by the antennae 30 and 32 does not ever get provided to each of the the “PHYs 33, 34 and 35”.

Because of the functionality of the “triplexers 58 ad 60”, the Applicant respectfully believes that it is clear that the “triplexers similarly divide the uplink signals by frequency channel, so that the frequency channel of F1 is passed to PHY 33, F2 to PHY 34, and F3 to PHY 35”.

In other words, only the portion of a received signal and/or frame included within “the frequency channel of F1 is passed to PHY 33”, only the portion of a received signal and/or frame included within the frequency channel of F2 is passed to “PHY 34”, and only the portion of a received signal and/or frame included within the frequency channel of F3 is passed to “PHY 35”.

At a very minimum, the Applicant respectfully believes that Schpak fails to teach and disclose the subject matter limitations that the Examiner identifies with respect to independent claims 1 and 23.

The Applicant respectfully believes that the inclusion of Vaisanen and further in view of Gorday do not overcome the deficiencies of Schpak with respect to independent claims 1 and 23.

The Applicant respectfully believes that the inclusion of Vaisanen and further in view of Gorday do not overcome the deficiencies of Schpak with respect to independent claim 28.

Moreover, the Applicant respectfully believes that the dependent claims within claims 1-3, 9, 23-24, 26-30, 32, 34, 35, and 47-49, being further limitations on the subject matter of allowable independent claims, are also allowable.

As such, the Applicant respectfully requests that the Examiner withdraw the rejections to claims 1-3, 9, 23-24, 26-30, 32, 34, 35, and 47-49 under 35 U.S.C. § 103(a) as being unpatentable over Shpak in view of Vaisanen and further in view of Gorday.

The Examiner asserts:

“4. Claims 8, 10, 13 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shpak (US 200410162037 A1) in view of Vaisanen et al (US 20040192222 A1) and further in view of Gorday et al (US 200410203836 A1) and further

in view of well known prior art (MPEP 2144.03).” (non-final office action, Part of Paper No./Mail Date 20070331, p. 6)

The Applicant respectfully traverses.

The comments made above with respect to Schpak are also applicable here.

The Applicant respectfully believes that the inclusion of Vaisanen and further in view of Gorday, and in further in view of the Examiner’s assertion of “well known prior art” do not overcome the deficiencies of Schpak with respect to independent claims 1 and 28.

Moreover, the Applicant respectfully believes that the dependent claims within claims 8, 10, 13 and 36-38, being further limitations on the subject matter of allowable independent claims, are also allowable.

As such, the Applicant respectfully requests that the Examiner withdraw the rejections to claims 8, 10, 13 and 36-38 under 35 U.S.C. § 103(a) as being unpatentable over Shpak in view of Vaisanen and further in view of Gorday and further in view of well known prior art.

The Examiner asserts:

“5. Claims 4-5, 31, 50-52, 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shpak (US 200410162037 A1) in view of Vaisanen et al (US 20040192222 A1) and further in view of Gorday et al (US 200410203836 A1) and further in view of Rajamani et al (US 20040214539 A1.” (non-final office action, Part of Paper No./Mail Date 20070331, p. 7)

The Applicant respectfully traverses.

The Applicant has canceled claims 47-63.

The comments made above with respect to Schpak are also applicable here.

The Applicant respectfully believes that the inclusion of Vaisanen and further in view of Gorday, and further in view of Rajamani do not overcome the deficiencies of Schpak with respect to independent claims 1 and 28.

Moreover, the Applicant respectfully believes that the dependent claims within claims 4-5, 31, being further limitations on the subject matter of allowable independent claims, are also allowable.

As such, the Applicant respectfully requests that the Examiner withdraw the rejections to claims 4-5, 31 under 35 U.S.C. § 103(a) as being unpatentable over Shpak in view of Vaisanen and further in view of Gorday and further in view of Rajamani.

In view of the Applicant's cancellation of claims 47-63, the Applicant respectfully requests that the Examiner withdraw the rejections to claims 50-52, 54 and 55 under 35 U.S.C. § 103(a) as being unpatentable over Shpak in view of Vaisanen and further in view of Gorday and further in view of Rajamani.

Allowable Subject Matter

The Examiner asserts:

“6. Claims 6, 7, 11, 12, 25, 33, and 53 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” (non-final office action, Part of Paper No./Mail Date 20070719, p. 9)

The Applicant respectfully traverses the objections to claims 6, 7, 11, 12, 25, 33, and 53.

In view of at least the comments submitted herewith, the Applicant respectfully believes that independent claims 1, 23, and 28 are allowable.

The Applicant respectfully believes that dependent claims 6, 7, 11, 12, 25, 33, and 53, being further limitations of the subject matter as claimed in allowable independent claims, are also allowable.

As such, the Applicant respectfully requests that the Examiner withdraw the objections to claims 6, 7, 11, 12, 25, 33, and 53.

The Examiner asserts:

“7. Previously cancelled claims 14-22 (now renumbered as claims 64-72) and 39-46 (now renumbered as (73-80) are allowed.” (non-final office action, Part of Paper No./Mail Date 20070719, p. 9)

The Applicant respectfully agrees with the Examiner that claims 14-22 (now renumbered as claims 64-72) and 39-46 (now renumbered as (73-80) are allowed.

New POWER OF ATTORNEY/CORRESPONDENCE ADDRESS
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Again, the Applicant respectfully points out that the Applicant is also submitting a new “power of attorney” herewith that both (1) appoints practitioners associated with USPTO customer number (CN) 51472 and also (2) indicates the new correspondence address of the present U.S. utility patent application to be that which is associated with USPTO CN 51472 (which is also listed below):

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The Applicant respectfully believes that claims 1-13, 23-38, and 47-80 are in condition for allowance and respectfully requests that they be passed to allowance.

The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes that such a communication would advance the prosecution of the present U.S. utility patent application.

RESPECTFULLY SUBMITTED,

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